APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
WARE, CICELY Q

ART UNIT	PAPER NUMBER
2634	2

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/693,679	FULTON, PAUL
	Examiner	Art Unit
	Cicely Ware	2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 December 2003_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-30_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-30_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _18 December 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Specification

1.   The abstract of the disclosure is objected to because

        a.   Pg. 33, line 8-9, applicant uses the phrase " error rate associate with".

Examiner suggests using "error rate associated with" for clarification purposes.

Correction is required. See MPEP § 608.01(b).

2.   The disclosure is objected to because of the following informalities:

        a.   Pg. 2, line 8-9, applicant uses the phrase "These multipath can cause".

Examiner suggests using "These multipaths can cause" for clarification purposes.

        b.   Pg. 2, line 12, applicant uses the phrase "vertical axis represent

amplitude". Examiner suggests using "vertical axis represents amplitude" for clarification

purposes.

Appropriate correction is required.

Claim Objections

3.   Claims 6, 16 and 26, objected to because of the following informalities:

        a.   Applicant makes reference to the acronym for forward error correction as

(FED). Examiner assumes applicant means "FEC". Examiner suggests correction.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5.   Claim 21 recites the limitation "said multipath signals" in Pg. 31, line 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7.   Claims 1-25, 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Zuqert et al. (US Patent 6,466,832).

(1) With regard to claim 1, Zuqert et al. discloses in (Fig. 7) a high quality wireless audio speaker which incorporates a method indicating reception performance of a wireless signal comprising the steps of (col. 2, lines 49-60): receiving said wireless signal at the electronic device (Fig. 7); demodulating said wireless signal (298); determining an error rate of a digital data portion of said wireless signal (col. 2, lines 49-60, col. 7, lines 22-23); and indicating a quality level of reception of said wireless signal at said electronic device based on said error rate (col. 7, lines 15-16, col. 19, lines 20-39).

(2) With regard to claim 2, claim 2 inherits all the limitations of claim 1. Zuqert et al. further discloses wherein said quality level of reception is indicated via a light emitting device (col. 4, lines 45-47).

(3) With regard to claim 3, claim 3 inherits all the limitations of claim 1. Zuqert et al. further discloses the step of linearly translating said error rate into said quality level (col. 19, lines 29-34).

(4) With regard to claim 4, claim 4 inherits all the limitations of claim 1. Zuqert et al. further discloses wherein said error rate is a packet error rate (col. 2, lines 52-54,col. 4, lines 49-52).

(5) With regard to claim 5, claim 5 inherits all the limitations of claim 4. Zuqert et al. further discloses wherein said packet error rate is determined by a cyclic redundancy code (CRC) algorithm (col. 2, lines 51-55).

(6) With regard to claim 6, claim 6 inherits all the limitations of claim 4. Zuqert et al. further discloses wherein said packet error rate is determined by a forward error correction algorithm (col. 1, lines 35-37).

(7) With regard to claim 7, claim 7 inherits all the limitations of claim 1. Furthermore, Zuqert et al. discloses wherein said quality level is linearly proportional to said error rate of said wireless signal (col. 19, lines 29-34).

(8) With regard to claim 8, claim 8 inherits all the limitations of claim 1. Furthermore, Zuqert et al. discloses in (Fig. 8) the step of adaptively updating said step(c of determining said error rate and said step d) of indicating said quality level (col 19, lines 20-21, 29-46).

(9) With regard to claim 9, claim 9 inherits all the limitations of claim 1. Furthermore, Zuqert et al. discloses in (Fig. 8) the steps of recording a history of said quality level with respect to another variable; identifying a maximum quality level; and indicating when said quality is at said maximum level (col. 19, lines 19-56).

(10) With regard to claim 10, claim 10 inherits all the limitations of claim 1. Furthermore, Zuqert et al. discloses in (Fig. 7 (296)) the steps of providing feedback to control reception, said feedback relate to said quality level of reception (col. 15, line 67, col. 16, lines 1-3); and adjusting said reception based on said feedback, thereby improving said quality level of said reception (col. 19, lines 47-61).

(11) With regard to claim 11, claim 11 inherits all the limitations of claim 1. Zuqert et al. further discloses in (Fig. 7) a receiver; a processor (270), said processor coupled to said receiver; and a computer readable memory unit (280), said computer readable memory unit coupled to said processor, said computer readable memory unit containing program instructions stored therein that execute, via said processor, a method for providing a quality level of reception.

(12) With regard to claim 12, claim 12 inherits all the limitations of claim 11. Zuqert et al. further discloses wherein said quality level of reception is indicated via a light emitting device (col. 4, lines 45-47).

(13) With regard to claim 13, claim 13 inherits all the limitations of claim 11. Zuqert et al. further discloses the step of linearly translating said error rate into said quality level (col. 19, lines 29-34).

(14) With regard to claim 14, claim 14 inherits all the limitations of claim 11.

Zuqert et al. further discloses wherein said error rate is a packet error rate (col. 2, lines

52-54,col. 4, lines 49-52).

(15) With regard to claim 15, claim 15 inherits all the limitations of claim 14.

Zuqert et al. further discloses wherein said packet error rate is determined by a cyclic

redundancy code (CRC) algorithm (col. 2, lines 51-55).

(16) With regard to claim 16, claim 16 inherits all the limitations of claim 14.

Zuqert et al. further discloses wherein said packet error rate is determined by a forward

error correction algorithm (col. 1, lines 35-37).

(17) With regard to claim 17, claim 17 inherits all the limitations of claim 11.

Furthermore, Zuqert et al. discloses wherein said quality level is linearly proportional to

said error rate of said wireless signal (col. 19, lines 29-34).

(18) With regard to claim 18, claim 18 inherits all the limitations of claim 11.

Furthermore, Zuqert et al. discloses in (Fig. 8) the step of adaptively updating said

step(c of determining said error rate and said step d) of indicating said quality level (col.

19, lines 20-21, 29-46).

(19) With regard to claim 19, claim 19 inherits all the limitations of claim 11.

Furthermore, Zuqert et al. discloses in (Fig. 8) the steps of recording a history of said

quality level with respect to another variable; identifying a maximum quality level; and

indicating when said quality is at said maximum level (col. 19, lines 19-56).

(20) With regard to claim 20, claim 20 inherits all the limitations of claim 11.

Furthermore, Zuqert et al. discloses in (Fig. 7 (296)) the steps of providing feedback to

control reception, said feedback relate to said quality level of reception (col. 15, line 67,

col. 16, lines 1-3); and adjusting said reception based on said feedback, thereby

improving said quality level of said reception (col. 19, lines 47-61).

(21) With regard to claim 21, claim 21 inherits all the limitations of claim 1. Zuqert

further discloses in(Fig. 8) a computer readable medium containing therein computer

readable codes for causing an electronic device to implement a method of managing

said signals (col. 1, lines 61-67, col. 10, lines 13-49).

(22) With regard to claim 22, claim 22 inherits all the limitations of claim 21.

Zuqert et al. further discloses wherein said quality level of reception is indicated via a

light emitting device (col. 4, lines 45-47).

(23) With regard to claim 23, claim 23 inherits all the limitations of claim 21.

Zuqert et al. further discloses the step of linearly translating said error rate into said

quality level (col. 19, lines 29-34).

(24) With regard to claim 24, claim 24 inherits all the limitations of claim 21.

Zuqert et al. further discloses wherein said error rate is a packet error rate (col. 2, lines

52-54,col. 4, lines 49-52).

(25) With regard to claim 25, claim 25 inherits all the limitations of claim 24.

Zuqert et al. further discloses wherein said packet error rate is determined by a cyclic

redundancy code (CRC) algorithm (col. 2, lines 51-55).

(26) With regard to claim 27, claim 27 inherits all the limitations of claim 21.

Furthermore, Zuqert et al. discloses wherein said quality level is linearly proportional to

said error rate of said wireless signal (col. 19, lines 29-34).

(27) With regard to claim 28, claim 28 inherits all the limitations of claim 21.

Furthermore, Zuqert et al. discloses in (Fig. 8) the step of adaptively updating said

step(c of determining said error rate and said step d) of indicating said quality level (col.

19, lines 20-21, 29-46).

(28) With regard to claim 29, claim 29 inherits all the limitations of claim 21.

Furthermore, Zuqert et al. discloses in (Fig. 8) the steps of recording a history of said

quality level with respect to another variable; identifying a maximum quality level; and

indicating when said quality is at said maximum level (col. 19, lines 19-56).

(29) With regard to claim 30, claim 30 inherits all the limitations of claim 21.

Furthermore, Zuqert et al. discloses in (Fig. 7 (296)) the steps of providing feedback to

control reception, said feedback relate to said quality level of reception (col. 15, line 67,

col. 16, lines 1-3); and adjusting said reception based on said feedback, thereby

improving said quality level of said reception (col. 19, lines 47-61).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zuqert

et al. (US Patent 6466832) as applied to claim 24 above, in view of Klayman et al. (US

Patent 5,699,365).

(11) With regard to claim 26, claim 26 inherits all the limitations of claim 24. However Zuqert et al. does not disclose the computer readable medium wherein said packet error rate is determined by forward error correction (FEC) algorithm.

However Klayman et al. discloses the computer readable medium wherein said packet error rate is determined by forward error correction (FEC) algorithm (abstract).

Therefore it would have been obvious to one of ordinary skill in the art to modify Zuqert et al. to incorporate the computer readable medium wherein said packet error rate is determined by forward error correction (FEC) algorithm in order to subsequently and dynamically adjust the FEC for desirable downstream direction.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 703-305-8326. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

3900.

Cicely Ware

cqw
December 18, 2003

STEPHEN CHIN
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